SYNOPSIS

DYNAMICS OF RETAIL INVESTORS IN INDIAN IPO MARKET: AN ANALYSIS OF FACTORS AND RISK-RETURN SCENARIO

For the Registration of Doctor of Philosophy (Ph.D.) in Management

Submitted By

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SECTION 1: Introduction

Initial Public Offer (IPO) is a process through which an unlisted company can be listed to a stock exchange by offering its securities to the public. The objective of an IPO may differ from company to company. It may be for expansion of existing activities of the company or setting up of new projects or just to get its existing equity shares listed by diluting the stake of existing equity shareholders through offer for sale or any other object as may be specified by the company in its offer document. In an initial public offering (IPO), a private company becomes a public concern by issuing equity shares to the outside investors for the first time. IPO is a process through which companies access the capital market by selling a variety of securities, such as common stock, bonds and preferred stock. Certainly, companies have other ways of financing, such as retention of earnings; bank loan, overdraft etc., but the equity shares are the major source of funding. IPOs often come from smaller, younger companies seeking capital to expand their business. IPOs are quit risky to invest in. SEBI the capital Market regulator, which was established with the objective of investor protection and regulation of capital markets has issued many guidelines and introduced structural reforms to bring efficiency in the market and it, has brought out various norms the companies have to adhere to before approaching the primary capital market.

1.1. Indian Capital Market

Capital market is an important tool to build nations, and also through capital market, savings in the economy can be moved to productive sectors of an economy, thus enhancing productivity of the economy. “Among the emerging market economies, equity market in India has a unique place, as the performance of the equity market is often taken as the proxy for the performance of the overall economy. Capital Market is comprised of primary market and secondary market.

1.1.1 Primary Market

The primary market provides the channel for sale of new securities. The issuer of securities sells the securities in the primary market to raise funds for investment and/ or to discharge. In other words, the market wherein resources are mobilised by companies through issue of new securities is called the primary market. These resources are required for new projects as well as for existing projects with a

view to expansion, modernisation, diversification and upgradation. The primary market creates and offers the merchandise for the Secondary Market. The issue of securities by companies can take place in any of the following methods:

a) Initial public offer (securities issued for the first time to the public by the company). IPOs are classified in to two categories on the basis on eligibility criteria of profitability,
    - Mainline IPOs
    - SME IPOs

b) Further issue of capital.

c) Rights issue to the existing shareholder (on their renunciation, the shares can be sold by the company to others also).

d) Offer of securities under reservation/ firm allotment basis to;
    - Foreign partners and collaborators,
    - Mutual funds
    - Merchant bankers
    - Banks and institutions
    - Non resident Indians and overseas corporate bodies
    - Employees.

e) Offer to public

f) Bonus Issue.

1.1.2 Secondary Market

Secondary market refers to a market where securities are traded after being initially offered to the public in the primary market and/or listed on the Stock Exchange. Majority of the trading is done in the secondary market. Secondary market comprises of equity markets and the debt markets. The secondary market enables participants who hold securities to adjust their holdings in response to changes in their assessment of risk and return. They also sell securities for cash to meet their liquidity needs. The secondary market has further two components, namely the over-the-counter (OTC) market and the exchange- traded market. OTC is different from the market place provided by the Over The

Counter Exchange of India Limited. OTC markets are essentially informal markets where trades are negotiated. Most of the trades in government securities are in the OTC market. All the spot trades where securities are traded for immediate delivery and payment take place in the OTC market.

1.2 Investors in Capital Market

An investor is a person who is an individual or a corporate legal entity investing his capital in another venture or business but does not do the business himself or itself. The investor has no role to play in the day-to-day management of the business or its control except as permitted by the law. Investor carries on business when they buy and sell assets, arranges for other to buy and sell assets, manages assets belonging to others, or operates collective investment schemes. These activities are engaged by an investor, but they are not having any control over the day to day activities of any corporate. Normally, an investor is a blind person; they do not know any activities made by the company. Investor cannot guide the fate or destiny of the money invested. An investor to that extent is quite fragile and is exposed to certain risks because the utiliser of his money can commit mistakes.

1.2.1 Types of Investors:-

1.2.1.1 Qualified Institutional Bidders: QIB's are qualified institutional buyers as defined by SEBI's Issue of Capital and Disclosure Requirements (ICDR) regulations. Generally, 50% of the offer is reserved for QIBs. Typical examples are:

- A mutual fund, venture capital fund and foreign venture capital investor registered with the board.
- A foreign institutional investor and sub account (other than a sub account which is a foreign corporate or foreign individual), registered with SEBI.
- A public financial institution as defined in section 4 A of the companies Act, 1956.
- A scheduled commercial bank.
- A multinational and bilateral development financial institution.
- A state industrial development corporation.
- An insurance company registered with the Insurance Regulatory and Development Authority.

- A provident fund with minimum corpus of Rs. 25 crore.
- A pension fund with minimum corpus of Rs. 25 crore.
- National Investment Fund.
- Insurance fund set up and managed by army, navy or air force of the Union of India.

1.2.1.2 Non Institutional Investor (NII): This category is a mix of institutional and individual buyers. Bids for value exceeding INR 2,00,000 from individual/ HUF investors, bodies corporate, trusts (registered under the societies Act) and other eligible investors who do not come under the category of QIBs are eligible to invest in shares of the issuing entity are considered under this category. 15% or 10% (where 60% of the issue is earmarked for QIBs) of the issue is earn marked to non institutional investors.

1.2.1.3 Retail Individual Bidders: Individual investor and HUF firms who apply for allotment of shares with bid amount not more than INR 2, 00,000 come under this category. The limit was enhanced with the objectives that retail individual investors who have capacity and appetite to apply for securities worth above Rs. 1 lakh should not be constrained and to keep pace with inflation through greater margin. A minimum of 35% of net issue size is reserved for allotment to this category. If the issue is under Rule 19(2) (b) of the SC (R) whereby 60% of the issue size is reserved for QIB, it is mandatory to offer 30% of the shares to retail individual investors.

1.3 Present Status of IPO in India

After financial crisis (2008), Indian IPO market had been reported constant decline performance in consecutive years. After a muted performance till FY15, the Indian IPO market picked up in the last two years with 94 and 173 companies listed in FY16 and FY17 respectively. This further gained momentum in the running FY18 fiscal with 90 companies already hitting the IPO market till June 2018. India raised Rs 36,362 crore and Rs 19,306 crore in FY10 and FY11, respectively. The domestic economy has remained resilient despite several big disruptions including demonetization and the GST roll-out, and this has buoyed foreign and domestic investor sentiment.

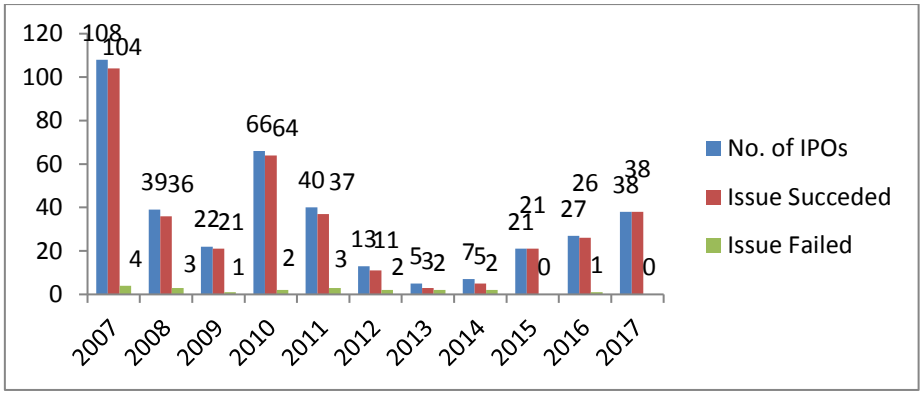


Figure 1: IPO (Mainline) Performance in last ten Years
(Source: Report of Chittogarh, 2017)

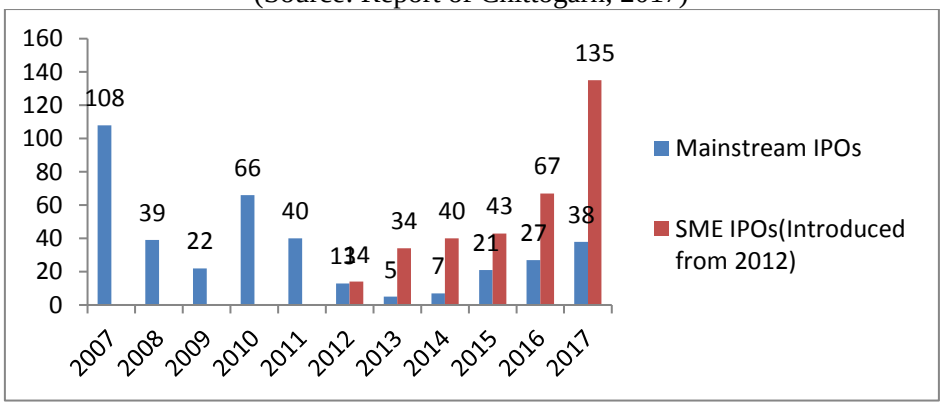


Figure 2: IPO classification in last ten Years
(Source: Report of Chittogarh, 2017)

Indian companies raised a record 75,475 crore in 2017 through initial public offerings (IPOs), with 36 companies including India's biggest insurers, going public. Last year's fundraising is 89% more than the previous record of 36,362 crore reported in 2010. One of the standout features of the IPO run in year FY17 has been the number of large – sized IPOs that hit the market. The year witnessed four $1 billion plus IPOs- General Insurance Corp of India (11,175 crore), The New India Insurance Co ltd (9466.9 crore), HDFC Standard Life Insurance Co.Ltd (8695 crore) and SBI Life insurance Co ltd (8364 crore)

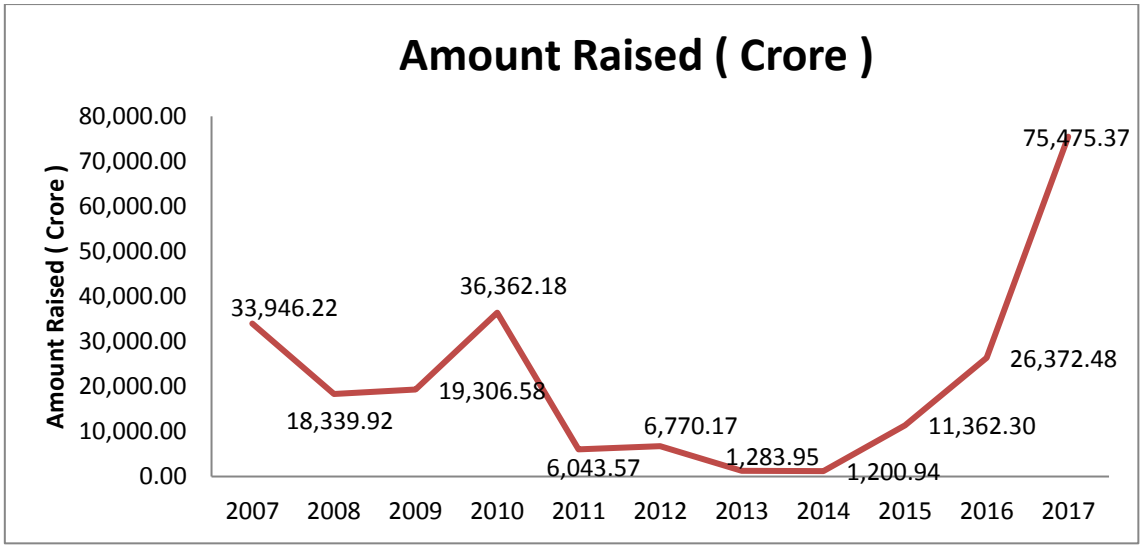


Figure 2: Amount raised by companies in last 10 years
(Source: Annual report of SEBI, 2017)

1.4 Retail Investor Subscription status in IPOs

A widely held shareholding structure is essential for the sustenance of a continuous market for listed securities to provide liquidity to the investors and to discover fair prices. Retail investor plays important role in fair price discovery and liquidity position in secondary market. Retail Investor greater financial inclusion and market participation have long been the objective of Indian governments and regulatory authorities. Their Subscription level has significant impact on underpricing (Agarwal, 2008).

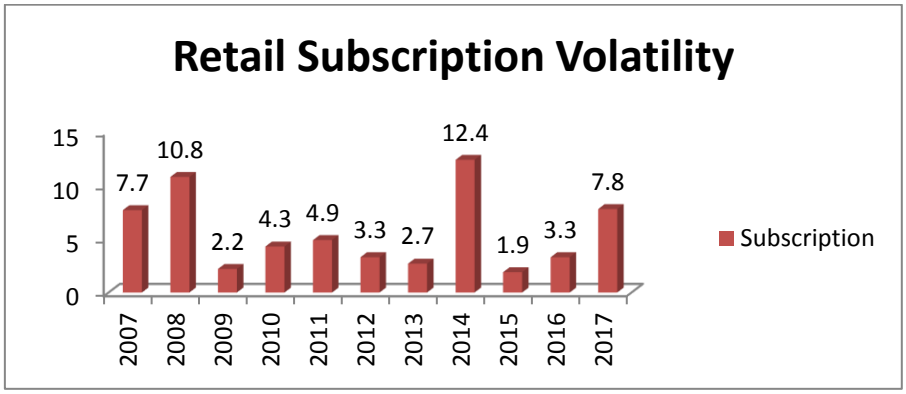


Figure 3: Retail Investor Subscription in last 10 years IPO
(Source: Report Moneycontrol, 2017)

Retail subscription volatility termed as a consequences of volatile nature of market sentiment. If market sentiment is bullish in nature, high rate of investor subscription an IPO issuer gets. This surge

in demand causes underpricing of IPO issue but it is not necessary that bullish market sentiment with high rate of institutional investor involvement reinforce retail investor investment in prevailing IPOs. Sometimes retail investor blindly opt IPOs in bearish scenario also. In figure 3, retail subscription accountable for 12.4% in 2014 and 1,283.95 crore amounts raised in only seven IPOs in which two IPOs failed to list on their listing. So sometimes retail investors behave irrationally with weak decision making base and it also accountable for retail volatile subscription in IPO investment.

Security exchange board of India (SEBI) mandate an allocation up to 35% for retail investors and allocation will be distributed on proportionate basis in oversubscription situation. Due to limited allocation, high number of retail investor does not get IPO allocation which dented their enthusiasm for further investment in IPOs and they exited from IPO market for sometime or for long time. Financial year 2017 has been termed as blockbuster year of IPO history as high 75,475.37 crore fetched by IPO issuer but retail subscription level has not reached to peak as happened in 2014. Performance of 2015-16, 2016-17 might be responsible for low trust of retail investors in FY17 IPOs. It shown that retail investor emphasizes previous year's performance in their decision making considerations.

1.5 SEBI Reforms in pursuit of making robust IPO market

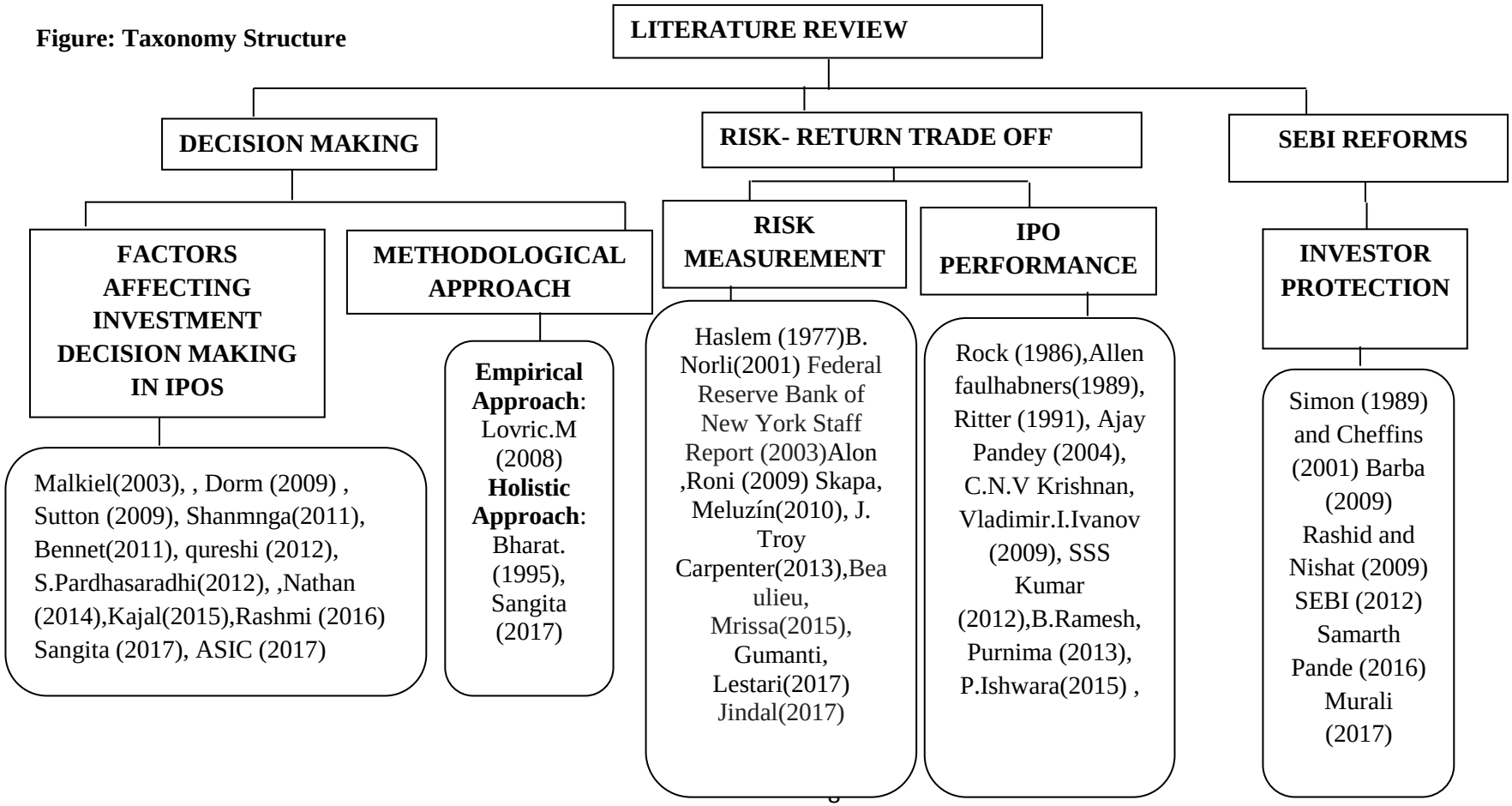
In an effort to expand the reach of IPOs across the country, SEBI has notified wide-ranging reforms, which are not only targeted to improve IPO issues quality but to also increase their participation and protection. Which are as follows:

- Continued disclosure mechanism to mitigate information asymmetry
- Corporate governance
- Improved liquidity of security issued
- Enhancing shareholder interest protection
- Investment advisors regulations
- Fast track and profitability route provisions
- Rationalization of issues process and compliances
- Improving investment culture

SECTION 2: Literature Review

For the purpose of the study, a detailed review of literature is conducted to identify the factors affecting investment decision making in IPOs and also searching possibilities of Risk- Return trade off and impact of SEBI reforms on investor protection. The review is first classified in three broad categories; decision making, risk- return Trade off and SEBI reforms. Decision making is further classified into Factors affecting investment decision making and Methodological approach. Risk- return trade-off is further classified into Risk measurement and IPO performance. SEBI reform is classified into investor protection. (Ref. Figure 1.1).

Figure: Taxonomy Structure


LITERATURE REVIEW
DECISION MAKING
RISK- RETURN TRADE OFF
SEBI REFORMS
FACTORS AFFECTING INVESTMENT DECISION MAKING IN IPOS
METHODOLOGICAL APPROACH
RISK MEASUREMENT
IPO PERFORMANCE
INVESTOR PROTECTION
Malkiel(2003), , Dorm (2009) , Sutton (2009), Shanmnga(2011), Bennet(2011), qureshi (2012), S.Pardhasaradhi(2012), ,Nathan (2014),Kajal(2015),Rashmi (2016) Sangita (2017), ASIC (2017)
Empirical Approach: Lovric.M (2008) Holistic Approach: Bharat. (1995), Sangita (2017)
Haslem (1977)B. Norli(2001) Federal Reserve Bank of New York Staff Report (2003)Alon ,Roni (2009) Skapa, Meluzín(2010), J. Troy Carpenter(2013),Beaulieu, Mrissa(2015), Gumanti, Lestari(2017) Jindal(2017)
Rock (1986),Allen faulhabners(1989), Ritter (1991), Ajay Pandey (2004), C.N.V Krishnan, Vladimir.I.Ivanov (2009), SSS Kumar (2012),B.Ramesh, Purnima (2013), P.Ishwara(2015) ,
Simon (1989) and Cheffins (2001) Barba (2009) Rashid and Nishat (2009) SEBI (2012) Samarth Pande (2016) Murali (2017)

2.2 Factors affecting decision making of Investors in IPOs

Investment decision making in IPOs are different from existing equities as limited information available about issuing companies internal affairs. Initial public offer is a process by which newly incorporated companies first time issue their shares that means no past record exist in market about company's operational and managerial affairs. It adds uncertain factors in decision making of IPO investment. Past studies had discovered some decision making factors but mostly of them inclined to institutional investor

It was reported in general, that IPO offer size, Underwriter reputation, book value of equity prior to going public, industry attractiveness, ownership structure and quality of management (**Bharat .A. Jain, (1995)** and qualitative financial information (**Vicky Arnold, Jean C. Bedard , Jillian Phillips , Steve G. Sutton (2009)**are efficient measure for quick investment decision making.
Furthermore, decision support model (**Bharat .A. Jain, (1995)** had integrated the quantitative and qualitative variables through the use of the Analytic Hierarchy Process (AHP).

Equity decision making in secondary market differ from IPOs decision making as far as no past track record is concerned but exploring factors affecting equity decision making in secondary market provide the insightful fact about their post- purchase behavior and timing of liquidity. **Malkiel, (2003)** observed that investors those interested in current income are most likely interested in stocks that pay a consistent and high dividend.

It was found that investors psychological contour also affect the investment decision making irrespective of kind of financial instrument. **Haritha PH, Rashmi Uchil (2016)**investigates and explains the multidisciplinary field of psychology and sociology of financial behavior. **Bounded rationality**(Herbert Simon, 1982) is the idea that when individuals make decisions, their rationality is limited by the tractability of the decision problem, the cognitive limitations of their minds, and the time available to make the decision leads to make decisions on heuristics and other behavioral biases. **Shanmnga Sundaram V (2011)** examined the impact of behavioral dimensions of investors in Capital market and found that investor decisions are influenced by psychological factors

as well as behavioral dimensions and this psychological effect is created by the fear of losing money, sudden decline in stock indices, greed and lack of confidence about their decision making capability. Herding is another factor which influenced investment decision making as **Daniel Dorn(2009)** examined the effect of sentiment wave on retail investor decision making in German IPO market and documented that retail buyers consistently overpay for initial public offerings (IPOs) in the when-issued market(Fresh equities) relative to the immediate aftermarket(old equities).

Other factors that appear to influence a investor's decision making include financial advisor(**Nathan Berg (2014)**, Media buzz at the time of investment (**Syed Tabassum Sultana, S Pardhasaradhi, 2012)**, heuristics, use of financial tools, risk aversion, firm-level corporate governance and firm-level corporate governance are important factor affecting investment decision making. **(Ahmed Imran Hunjra, 2012).**

Australian Securities and Investments Commission(ASIC)has released a report on recent research into the factors that institutional and retail investors take into account when deciding whether or not to invest in an initial public offering (IPO). The report shows that institutional and retail investors shared certain characteristics but differed in many respects, including the way they viewed the prospectus, with retail investors reporting that they found prospectuses challenging.

2.3Risk-return Trade-off of IPOs post listing

The post-listing performance of an IPO draws the distinction between hot money and high-quality money getting into it. Investor's shows risk averse behavior when investing in the markets, which includes IPOs and equity mutual funds. Risk can be categorized into two categories, one is idiosyncratic risk and other is market risk. Sum of these types of risk equates as total risk of investment which is responsible for stock market volatility. Idiosyncratic risk has been documented to account for a high proportion of total risk.

Investor emphasize on risk- return trade off as **Baker, Hargrove and Haslem (1977)** in their empirical study on risk/ return preferences of investors found that investors behave rationally, taking into account the investment's risk/return trade-off.

Underperformance of IPO issues depict the inherent risk factors which should be taken in to consideration by retail investor. **Marie- claude Beaulieu, Habbiba Mrissa (2015)** characterizes the role of risk in the initial public offering (IPO) cycle and differentiates the risk into firm-level systematic and idiosyncratic volatilities and assesses their role in the IPO cycle.

B. Espen Eckbo, Norli (2001) introduced a liquidity factor and leverage. Study emphasized that this factor is significant and reduces expected IPO returns relative to non-IPO stocks.

Tatang Ary Gumanti, Ayu Retsi Lestari (2017) considered number of risk factors such as use of proceeds for investment, size of issue and the level of ownership retained on initial returns of firm making Initial Public Offerings (IPOs) in Indonesian capital market. The number of risk factors is found to be positively related to the level of average positive initial returns (underpricing).**Alon Brav, Roni Michaely(2009)**also considered the two possible explanation for underperformance which is due to mispricing or the risk characteristics of the issuing firms and found that risk characteristics is valid reason for underperformance.

Accurate estimation of risk in IPOs itself is a big challenge due to dynamic nature of market so **Stanislav Skapa, Tomas Meluzin(2010)** recommended the use of bootstrap method for estimating risk characteristics for indexes and indicators. Whereas**Mani Jindal (2017)** evaluated the IPO risks and return performance by using three different measures, that is, Sharpe's, Treynor's, and Jensen's alpha measures.

Nowadays, majority of world's stock exchanges allowed emerging small companies (SMEs) to list themselves on exchange by relaxing the eligibility norms of public issue which leads to emerge fundamental differences between SME IPOs and Mainline IPOs. **James C. Brau, J. Troy Carpenter (2013)** tested the IPO anomalies in US IPO market to see if small firms differ from mainstream firms. They concluded that fundamental differences between SB and mainstream IPOs were responsible for different risk values on common time series plot.

2.4 IPO Performance Literature

Measurement of IPO performance depends on the time horizon, duration of performance measurement from listing to 1 year treated as short run performance where as more than 1 year treated

as long run performance. **SSS Kumar (2012)** explored the short run and long run performance of 156 book built IPOs and found that IPO are underpriced on listing day and outperform the market up to 24 month and after 2 year, they generate negative return. **B. Ramesh, Purnima dhume (2013)** found that overpricing exist in IPO market in long run as compared to short run. **P. Ishwara (2015)** has conducted the study on post issue performance of IPOs and found that majority of IPO underpriced in short run and overpriced in long run.

Gauging past IPOs performance can give insightful fact about optimal investment horizon to retail investor so retail investor must look after the previous IPO performance as a decoding tool of inherent uncertainty in upcoming IPO issues as **Allen and Faulhaber's (1989)** empirical evidence suggested the existence of `hot issue 'markets for initial public offerings: in certain periods and in certain industries, new issues are underpriced and rationing occurred. This research paper develops a model consistent with this observation, which assumes the firm itself best knows its prospects. In certain circumstances, firms with the most favorable prospects find it optimal to signal their type by under pricing their initial issue of shares, and investors know that only the best can recoup the cost of this signal from subsequent issues. Investors should understand the agency conflict between underwriter and issuer. They use some tactics to decode information asymmetry by underpricing their issues to fetch marginal investors so as to obtain democratic ownership distribution. **Rock (1986)** proposed the "Winner Curse hypothesis" to reasonably explain an IPO's positive initial return. The hypothesis implies that more uncertain issues should have higher initial returns. Issuers and their investment bankers attempt to reduce information asymmetry and initial returns by disseminating information about the IPO firm. Investors, on the other hand, try to judge the growth potential of a company going public from the available information, which includes age, size, information about promoters, and industry classification. **Ritter (1991)** investors are periodically overoptimistic about the earning potential of young growth companies and (2) firms take advantage of these "windows of opportunity."

It was found that IPO performance differs by industry specific factors as **Ajay Pandey (2004)** found that IPOs performance governed by industry specific waves and also pointed that money mobilization is more in book building than fixed price.

Furthermore, profile of promoters also plays a critical role to decode information asymmetry as **C.N.V Krishnan, Vladimir.I.Ivanov (2009)**, examine the association of a venture capital (VC) firm's reputation with the post-IPO long-run performance of its portfolio firms and find that VC reputation, as measured by the past market share of VC-backed IPOs, has significant positive associations with an array of long-run firm performance measures.

2.5 Impact of SEBI reform

Indian capital market is an emerging financial market which is constantly endeavoring to evolve as one of the Asia's most developed markets. In this regard, the Indian capital market regulator, SEBI (Security and exchange board of India), ever since 1992, has been actively contributing with stream of rules, regulations and reforms to help Indian capital market grow and develop in a regulated manner, after the establishment, SEBI has emphasized on robust investor protection and quality of IPO issues in Indian IPO market. Protection of marginal investor has been an upmost priority of world's capital market regulator as **Barbara black (2009)** in her research paper titled "Protecting the Retail Investor in an age of Financial Uncertainty" highlighted the agency conflicts and stated that SEC personnel should act as if they mean it when they say the Agency is the "investor's advocate." Think of every investor as your mother. Investor protection can be proxy as degree of ease in investment as resulted by regulator intervention. This aspect examined by**Mamunur Rashidand Md. Ainun Nishat (2009)**, they explored the components of market structure that contribute to the satisfaction level of retail investors. The investors put the strongest emphasis on effective investment analysis, followed by ease of the transaction process, effective information management and timely risk management. The study suggests the importance of effective regulation, disclosure requirements to ensure a supply of quality information. **Simon (1989) and Cheffins (2001)** suggest that the choice of exchanges on which firms list may indicate their attitude towards investor protection.

Previous studies shown that some issues like Investors Education, Redressal System, Insiders trading Control mechanism and SMAC (Secondary market advisory committee)(Secondary Market) **S Mohana Murali (2017)** need to be addressed in order to restoring investor's confidence.

Table 1: Synthesized Matrix of Literature Review

Sr No	Author	DecisionMaking	Risk Measurement	IPO Performance	SEBI Reforms (Investor Protection)	Findings
1.	Baker, Hargrove and Haslem (1977)		✓			Empirical study on risk/ return preferences of investors found that investors behave rationally, taking into account the investment's risk/return tradeoff.
2.	Rock (1986)			✓		Proposed the "Winner Curse hypothesis" to reasonably explain an IPO's positive initial return. Investor should judge the growth potential of a company going public from the available information, which includes age, size, information about promoters, and industry classification.
3.	Allen and Faulhaber's (1989)			✓		This research paper develops a model consistent with hot issue market observation, which assumes the firm itself best knows its prospects and investors know that only the best can recoup the cost of this signal from subsequent issues.
4.	Ritter(1991)			✓		Under pricing of initial public offerings (IPOs) that have been widely documented appeared to be a short-run phenomenon. The patterns were consistent with an IPO market in which investors are periodically overoptimistic about the earning potential of young growth companies and firms take advantage of these "windows of opportunity."
5.	Bharat.A.Jain (1995)	✓				Develop a decision support model for identifying successful new ventures. Chosen independent variable were IPO offer size, Underwriter reputation, book value of equity prior to going public, industry attractiveness, ownership structure and quality of management.
6.	B. Espen Eckbo, Norli (2001)		✓			Examined six thousand Nasdaq IPOs and concluded that poor performance reflects risk factor exposures partly related to unique leverage and liquidity characteristics of IPO firms.

Sr No	Author	DecisionMaking	Risk Measurement	IPO Performance	SEBI Reform (Investor Protection)	Findings
7.	Cheffins (2001)				✓	Suggested that the choice of exchanges on which firms list may indicate their attitude towards investor protection.
8.	Malkiel, (2003)	✓				Observed that investors those interested in current income are most likely interested in stocks that pays a consistent and high dividend.
9.	Ajay Pandey (2004)			✓		Found that IPOs performance governed by industry specific waves and also pointed that money mobilization is more in book building than fixed price.
10.	Lovric M (2008)	✓				Presented a description model of individual investor decision in which investment decisions are seen as an iterative process of interactions between the investor and the investment environment. They suggested that this conceptual model can be used to build stylized representations of individual investors and further studied using the paradigm of agent-based artificial financial markets.
11.	Roni Michaely(2009)		✓			examined the potential reasons for low long-run average returns of equity issuers and found that risk characteristics is valid reason for underperformance.
12.	Daniel Dorn(2009)	✓				Examine the effect of sentiment wave on retail investor decision making in German IPO market and documented that retail buyers consistently overpay for initial public offerings (IPOs) in the when-issued market(Fresh equities)relative to the immediate aftermarket(old equities).
13.	Barbara black (2009)				✓	Protecting the Retail Investor in an age of Financial Uncertainty" highlighted the agency conflicts and stated that SEC personnel should act as if they mean it when they say the Agency is the "investor's advocate." Think of every investor as your mother.
14.	Mamunur Rashid and Md. Ainun Nishat (2009)				✓	Explores the components of market structure that contribute to the satisfaction level of retail investors. The study suggests the importance of effective regulation, disclosure requirements to ensure a supply of quality information.

Sr No	Author	Decision Making	Risk Measurement	IPO Performance	SEBI Reform (Investor Protection)	Findings
15.	C.N.V Krishnan, Vladimir.I.Ivanov(2009)		✓	✓		VC reputation, as measured by the past market share of VC-backed IPOs, has significant positive associations with an array of long-run firm performance measures.
16.	Stanislav Skapa, Tomas Meluzin(2010)	✓				Introduced bootstrap method for estimating risk characteristics for IPO indexes and indicators.
17.	Shanmnga Sundaram V (2011)	✓				Investor decisions are influenced by psychological factors as well as behavioral dimensions and this psychological effect is created by the fear of losing money, sudden decline in stock indices, greed and lack of confidence about their decision making capability.
18.	Bennet (2011)	✓				Factor analysis result shown that it was found out those five factors, investors 'tolerance for risk, strength of the Indian economy, media focus on the stock market, political stability and government policy towards business considered by retail investors for equity decision making.
19.	SEBI(2012)				✓	Due to prevailing tepid IPO performance, the sentiments of the investors would get affected and they may lose confidence in the capital market. Thus, there is a need to provide Safety Net arrangement for RIIs to build their confidence in capital market.
20.	SSS Kumar (2012)			✓		Explored the short run and long run performance of 156 book built IPOs and found that IPO are underpriced on listing day and outperform the market up to 24 month and after 2 year, they generate negative return.
21.	Syed Tabassum Sultana, S Pardhasaradhi(2012)	✓				Factor Analysis result shown that Individual Eccentric, Wealth Maximization, Risk Minimization, Brand Perception, Social Responsibility, Financial Expectation, Accounting information, Government & Media, Economic Expectation and Advocate recommendation factors.
22.	Salman Ali Qureshi, Ahmed Hunjra(2012)	✓				Demonstrated that firm-level corporate governance plays a pivotal role and is an important factor affecting investment decision making.

Sr No	Author	Decision Making	Risk Measurement	IPO Performance	SEBI Reform (Investor Protection)	Findings
23.	James C. Brau, J. Troy Carpenter(2013)	✓				They concluded that fundamental differences between SB and mainstream IPOs were responsible for different risk values on common time series plot.
24.	Laura Martignon, Nathan Berg (2014)	✓				Investigated factors that influence trust and advice taking among retail investors when consulting with financial advisors and making real-world portfolio decisions. The data reveal that non-expert retail investors trust their advisors a lot.
25.	Kajal Gandhi (2015)	✓				Survey revealed that Most retail investors find the stock market activities too complex and difficult to comprehend. Reasons that are cited include procedural complexity, inability to monitor investments and absence of stable returns.
26.	Samarth Pande (2016)				✓	Concluded that over a period of time, SEBI has strengthened both its regulatory purview and internal capacity to ensure that the interests of the investors are well protected thereby earning the reputation of being one of the best regulated markets in the world for Indian Securities market.
27.	S Mohana Murali (2017)				✓	Protections of interest of investors were satisfactory but some of the issues like Investors Education, Redressal System, and Insiders trading Control mechanism were not as per the required standard.
28.	Mani Jindal(2017)		✓			IPOs were underpriced and the three models also showed superior return performance of IPOs than the market index performance. The investors earned profits from their rational IPO investment decisions.
29.	Sangita Choudhary(2017)	✓				Identified the enablers of decision making and modeled their interrelationship using interpretative structural equation modeling to construct the decision framework for selection or rejection of equity as an investment avenue by retail investor.
30.	ASIC report(2017)	✓				ASIC has released a report on recent research into the factors that institutional and retail investors in an initial public offering (IPO). The report showed they differed in many respects, including the way they viewed the prospectus, with retail investors reporting that they found prospectuses challenging.

2.6 Research Gap:

In Indian context, IPO performance analysis has dominated the IPO literature in which underpricing has been extensively researched. To the best of the knowledge of the researcher, very less study has been done in India to document the factors/enablers that generally influence retail investor decisions in spite of their massive over subscriptions in IPOs. Investment decision cannot be executed in isolation. In previous researches, holistic view of decision making has not been studied as far as IPOs in Indian context is concerned. Risk- return pattern of IPOs has been extensively researched in western countries and found novel by researcher in Indian literature.

SECTION 3: Need and Objectives

3.1 Need of the Study:

IPO investment always been a tough task for retail investors as investment contain asymmetric information which leads to make a decision making in ambiguity. **In bull scenario, listing gain (stag profit) makes the IPO investment lucrative for retail investors. Retail investor is known as major source of providing risk capital (Ramesh Gupta, 1998). A different eligibility norm for SME IPOs and mainline IPOs leads to emerge fundamental differences between them. (James C. Brau, J. Troy Carpenter, 2013). It is imperative to examine risk-return trade off in both classes of IPO.** Today, the market regulator is clearly caught between the conflicting objectives of trying to develop India's primary market by getting more firms to list themselves, and at the same time preventing retail investors from burning their fingers in poor quality offers. It has so far juggled these objectives by allowing only firms meeting certain net worth and profitability criteria to tap the market due to retail investor protection. The net result of all this is that very few unlisted firms choose to take the market route in the early stages of their growth and are content to access private investors for capital and retail quota in IPO comes under question mark (Aarti Krishnan, 2018). So it is imperative to research on decision making of retail investor in IPO. With the advent of entrepreneurial wind in India, Indian startups will make their way to tap IPO market soon for liquidity (Vikram Limaye, chairmen, NSE, 2018). So well distributed ownership requires uniform participation of all class investors which makes the case very serious in future if retail quota come under question mark.

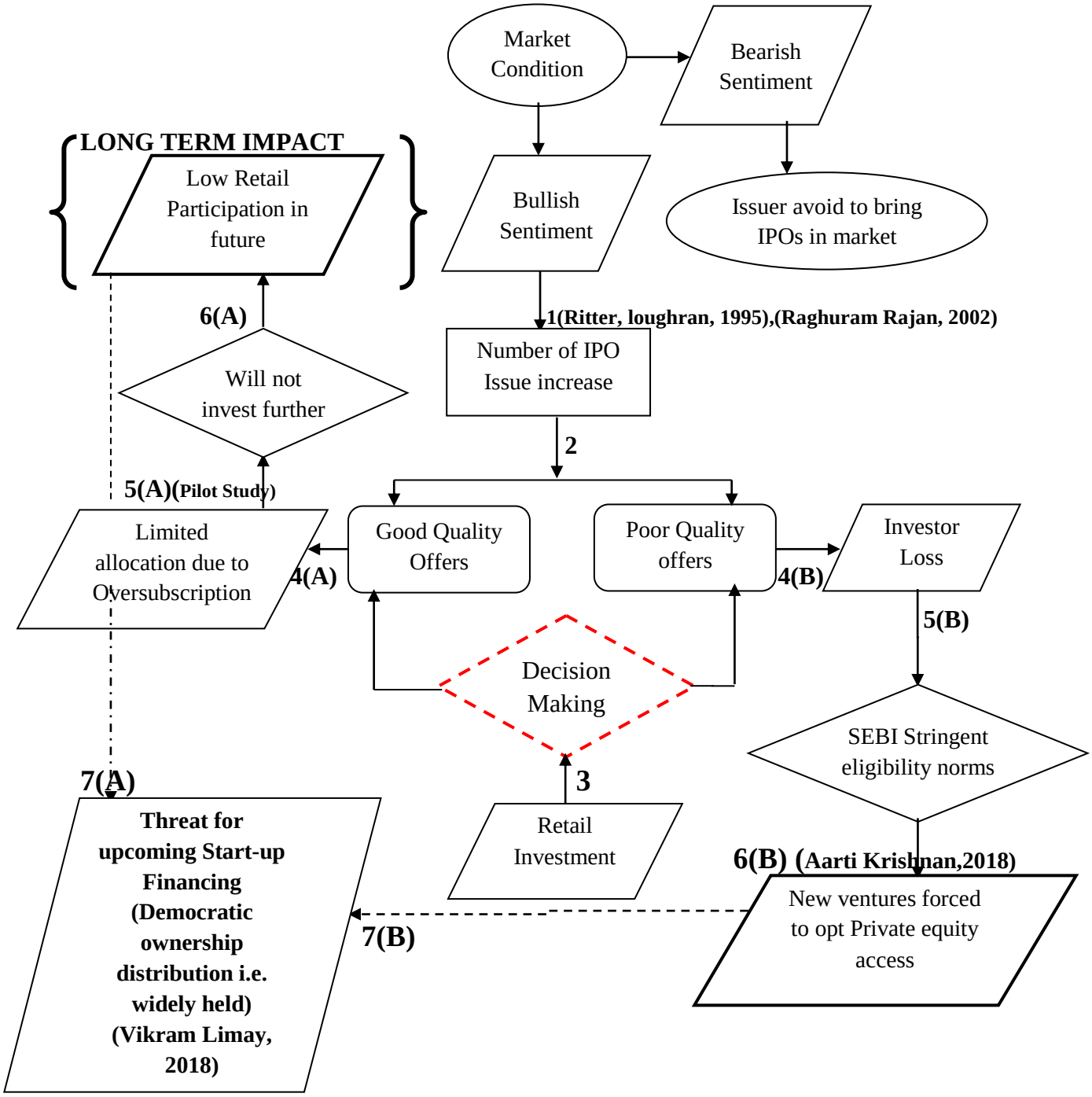


Figure 4: Flow Chart illustration of Need analysis of the Study

Source: Self Constructed through Literature review

3.2 Objective of the Study:

1. To identify factors affecting the retail investor decision making in IPOs.
2. To develop a model for investment decision in IPOs.
3. To examine Post-listing risk-return trade-off in SME IPOs and Mainline IPOs.
4. To analyse the implications of SEBI reforms and their impact on IPOs investment.

SECTION 4: Research design and Methodology

4.1 Hypothesis: In order to know the tradeoff between risk and return in IPO investment, inherent risk in two classes of IPOs and impact assessment of SEBI reforms, various hypotheses are formulated to test the validity.

H1: SMEs are usually in their initial business stages when they may go for an IPO. These companies may show a huge scope of development in the future and this lures the investors to finance these ventures. However, they pose a great amount of risk as there is no guarantee whether the business would actually grow or succeed. Different eligibility norms for SME IPOs and Mainline IPOs lead to emerge fundamental differences between them. (James C. Brau, J. Troy Carpenter, 2013). Blume and Friend (1978) and Baker and Haslem (1973) showed that investors are willing to take greater risks provided that there is a possibility of an increased return available. These studies also showed that investors put greater importance on risk management.

H01: There is no difference in the average risk pattern of SME IPOs and Mainline IPOs.
Ha1: There is difference in the average risk pattern of SME IPOs and Mainline IPOs.

H2: SEBI has initiated myriad regulatory reforms regarding investor protection in IPO market. So it is imperative to research on effectiveness of SEBI reforms post 2013. SEBI's investor protection measure emphasize on making sure that investors are fully informed about their investment, transactions and affairs of the company (Murali,2017). So it would be imperative to research on what SEBI had intended to accomplish through reforms and what was actually carried out.

H02: There is no impact of SEBI reforms on Retail investor protection in IPO investment.

Ha2: There is significant impact of SEBI reforms on Retail investor protection in IPO investment.

4.2 Nature of the Study

Present Research will be exploratory research as the study will help us to find the interrelationship (holistic view) of potential decision making variables of retail investors in IPO and descriptive research which include evaluation of risk and return scenario in IPO investment.

4.3 Scope of the Study

The proposed study would focus on the retail investor experience in IPO market which would be helpful to access their investment understanding. The study will not cover other investment avenues. The study would be carried out in the NCR District and it would cover 384 investors.

4.3.1 Geographical Area Coverage

The survey will be conducted particularly in West UP and NCR region.

4.4 Sources of Data:

In this research study, both the primary and secondary data will be used to get adequate information for the achievement of the research objectives.

4.4.1 Primary Data Collection-

Data will be collected through administration of structured questionnaire. The managers of the stock broking companies and convener of SEBI's official investor awareness programme will be approached to distribute the questionnaires to the investors either in person or by sending it to their e-mail id's thereby ensuring anonymity and safety of data.

4.4.2 Secondary Data Collection

Data will be collected from different sources like journals, newspapers, internet and libraries. The data pertaining to primary market statistics and macro economic outlook will be collected from SEBI Handbook of Statistics, Indian Economic Survey released by Ministry of Finance, Official websites of National Stock Exchange, Bombay Stock Exchange and Reserve Bank of India.

4.5 Sampling Technique: Purposive sampling Technique. The respondents would be the retail investors and SEBI officials.

4.6 Sample Size

This research design requires huge sample size for the purpose of representation. For the purpose of this study, sample size determination formula for infinite population ('unknown population') used as

$$n = \frac{Z^2 \times p(1-p)}{M^2}$$

The following sample size formula for infinite population (more than 50,000) is used to arrive at a representative number of respondents when population estimate is known (Godden, 2004):

Where: n = Sample Size for infinite population

Z = Z value

p = population proportion (expressed as decimal)

M = Margin of Error

In order to minimize the bias and obtain realistic sample size, sample size is evaluated as- Estimating 50% of population with 5% Margin of Error

Population Scenario	Z value at 95% Confidence level	Margin of Error	Sample size Calculation	Sample Size
50%	1.96	5%	(1.96)2*0.5(1-0.5)/0.052	**384.16**

Total estimated sample size for retail investors is 384.

4.6.1 IPO Data

All 325 Equity- IPOs, listed on BSE will be considered. After listing, the data for 2 years post-listing will be considered for successful IPOs in the duration of 2013-2018. Reason for selection of BSE instead of NSE is heterogeneous pool of IPO firms found in BSE.

Sr.No	Industry Wise Classification of IPOs	No of IPOs
1	Financial Services	43
2	Fashion Industry	17
3	Agriculture Industry	10
4	Entertainment Industry	14
5	IT Industry	15

6	Telecommunication	4
7	Manufacturing	69
8	Construction and Engineering	19
9	Logistic Industry	34
10	Real Estate	11
11	Consulting Services	7
12	Food Industry	13
13	Pharmaceuticals	11
14	Paper & Packaging Industry	8
15	Healthcare Services	12
16	Chemical Industry	7
17	Education Sector	7
18	Hospitality Industry	5
19	Trading Industry	12
20	Defence Industry	3
21	Miscellaneous Commercial Services	4

Total No of IPOs in the duration of 2013-2018= **325**

4.7 Tools of Data Analysis

Following table reveals the specific methodology which will be used to fulfil the objectives:

S.No	Objective of the Study	Statistical Tools
1.	To identify factors affecting investment decision making in IPOs.	Factor Analysis
2.	To develop a model for investment decisions in IPOs.	Interpretive Structural Modeling
3.	To examine the Post-listing risk-return trade-off in IPOs.	Descriptive Statistics
4.	To analyse the implications of SEBI reforms and their impact on IPOs investment by retail investor.	Descriptive Statistics

4.7.1 Description of Statistical tools

4.7.1.1 Factor Analysis

In the present study, factor analysis is used to explore the hidden decision making variables of retail investor. Factor Analysis (FA) is an exploratory technique applied to a set of observed variables that seeks to find underlying factors (subsets of variables) from which the observed variables is generated. Factor analysis is carried out on the correlation matrix of the observed variables. A factor is a weighted average of the original variables (Armstrong, 1968). These drawn factor will be use by researcher to draw inter-relationship amongst them to construct decision making model with the help of interpretative structural modeling.

4.7.1.2 Interpretive Structural Modeling

ISM framework will be use by researcher to construct a model based on self interaction matrix of decision factors antecedents and consequences. Interpretive structural modeling (ISM) is a well-established methodology for identifying relationships among specific factors, which define a problem or an issue. This approach has been increasingly used by various researchers to represent the interrelationships among various elements related to the issue. ISM approach starts with an identification of variables, which are relevant to the problem or issue. Then a contextually relevant subordinate relation is chosen. Having decided the contextual relation, a structural self-interaction matrix (SSIM) will be developed based on pair wise comparison of variables. After this, SSIM would convert into a reachability matrix (RM) and its transitivity will be checked. Once transitivity embedding is complete, a matrix model is obtained. Then, the partitioning of the elements and an extraction of the structural model called ISM will be derived.(Rajesh Attri, Nikhil Dev, Vivek Sharma, 2013).

4.7.1.3 Regression and Correlation

Regression analysis will be use by researcher to estimate total risk in IPO issue. IPO returns will be regressed against BSE IPO Index market return. Intercept value of regression will give systematic risk estimate and variance of residual of regression will account for unsystematic risk. Other alternative to estimate systematic risk is Fama and Fench model. Correlation will be use by researcher to find out the relationship between systematic risk and returns in IPO investment.

4.8 Implications of the Study

Every economy needs a vibrant IPO market. Capital mobilisation for investment happens through IPOs. When the capital market functions effectively, resources get channelized into the most productive uses but it needs uniform participation of all class investors and domestic retail investors is considered as vital part of the capital market as they acted as shield to cop up sudden investment withdrawal from FIIs. SEBI started making investment culture conducive to increase retail participation in IPO market. This study will find out the potential areas to make investment culture

more conducive by analysing decision making style of retail investors. Over the period of time, SEBI introduced the reforms like Investor advisor regulations, restriction on withdrawal of institutional investor's bidding and showing subscription trends of institutional investors on real time basis indicated that regulator of Indian capital market (SEBI) making reforms on the basis of decision making pattern of retail investors to make investment easier for retail investor. So this study will help the policymaker in the following ways:

- Retail Investor's strategy to decode information asymmetry in IPO investment.
- Finding out decision criteria and methodology of retail investor.
- Retail investor's awareness level regarding regulatory framework of IPO investment.
- Accessing risk-return trade-off would contribute the understanding of risk management practitioner regarding IPO investment.
- Accessing current state of retail investor decision making and awareness and satisfaction level in the context of regulatory mechanism would provide strong inputs to policymaker to further increase retail participation in IPO investment.

SECTION 5: Proposed Chapterization

Chapter 1: Introduction

1.1. Indian Capital Market

1.1.1. Primary Market

1.1.2. IPO Market in India

1.2. Present status of Retail investor's subscription in IPOs

1.3. Risk - Return characteristics of IPO investment

1.4. Need of the Study

Chapter 2: Review of Literature

2.1. Factors affecting investment decision making in IPOs

2.2. Risk- Return Trade-off of IPOs

2.3. SEBI Reforms: Investor Protection

Chapter 3: Research Methodology

3.1. Research Objectives

3.2. Sample Design

3.3. Sampling Technique

3.4. Sample Size and Statistical Techniques Used

3.5. Geographical Area

Chapter 4: I. Findings and Analysis

II. Interpretation of Results

III. Model of Investment decision making in IPOs

Chapter 5: Conclusion

Chapter 6: Recommendations

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